

REMARKS

Claims 1-28 were currently pending in the present application, all of which stand rejected. Claims 1, 4, 5, 10, 13, 15, 19, 23, and 28 are amended.

Claim Rejections – 35 USC §103

Claims 1-13 and 15-26 are rejected under 35 USC section 103(a) as being unpatentable over GB 2282928 to Childs et al (“Childs”) in view of USP 6,897,876 to Murdoch et al. (“Murdoch”) and USP 6,421,142 to Lin et al. (“Lin”).

Claims 1 and 15 are patentable over a combination of Child, Murdoch, and Lin because it recites “applying a scaling factor including a ratio between the maximum allowed value and the maximum value of C1, C2, C3, and W.” This method is described, for example, in paragraph 26 of the Application. Although the Office Action points to Lin’s column 11, lines 27-61 as teaching this limitation (see Office Action, page 12, point 44), the cited section says nothing about using a ratio of the maximum allowed value and the maximum RGBW value. Rather, the cited section talks about distance between points in the color space. Based on these facts indicating that Lin discloses a method that is clearly distinguishable from the invention, Applicant traverses the conclusory statement in Office Action’s page 12, point 44 that the inventions and Lin’s teaching are equivalent.

Claims 2-13 are patentable over Childs, Murdoch, and Lin because they depend from Claim 1. Claims 16-26 are patentable over the same set of references because they depend from Claim 15.

Furthermore, Claims 4 and 18 are patentable over a combination of Childs, Murdoch, and Lin at least because it recites “setting a white point to a desired value and calculating intermediate coefficients for the four colors of the four-color image data set using the desired white point....” As explained in paragraphs [0012] and [0013], the coefficients Cr, Cg, Cb, and Cw are calculated by using the white point (Xw, Yw, Zw) and the RGBW value. Although the Office Action states that Childs teaches this limitation at pages 6 and 7, specifically pointing to equations 1f and 2b-2d (see Office Action, page 9, point 35), the cited section fail to teach this limitation. Childs’ equation 1f has four unknowns, l, m1, m2, and n but these do not correspond to the “four colors of the four-color image data set” as recited in Claim 1. Specifically, l

corresponds to red, m1 and m2 correspond to green, and n corresponds to blue. Hence, there are no “coefficients for the four colors” in Childs’ equations. Equations on Childs’ page 7 work with three coefficients, one for each of red, green, and blue.

Moreover, Claim 13 is patentable over Childs, Murdoch, and Lin because it recites “correcting all four colors by using the scaling factor.” This limitation is described in paragraph [0026] of the Application. Lin’s column 11, lines 27-61, which describes Lin’s mapping method by using Euclidean distance between points in the color space, says nothing about correcting all four colors with the scaling factor because the description is for a specific color (point 134 represents the out-of-gamut color).

Claim 14 is rejected under 35 USC 103(a) as being unpatentable over Lin in view of U.S. Published Patent Application No. 2004/0056867 to Cui et al. (“Cui”).

Applicant traverses this rejection on the ground that Lin and Cui, even in combination, fail to disclose all the limitations of Claim 14. The Application discloses using maximum RGBW values as an index into a table of inverse values (see Application, paragraph [0029] to [0030]). In contrast, neither reference discloses “an inverse look-up table.” Although the Office Action cites to Lin’s column 20, lines 19-22 as disclosing this element (see Office Action, page 13, top paragraph), the cited section describes an interpolation technique using a look-up table and says nothing about inverse values that are used for scaling. Likewise, Cui’s paragraphs 29-32, which the Office Action alleges discloses the scaling factor being an inverse value of a function of the maximum coefficient (see Office Action, page 13, point 48), says nothing about using a look-up table that stores inverse values that are used as a scaling factor. Hence, Claim 14 is patentable over Lin and Cui.

Claims 27 and 28 are rejected under 35 USC 103(a) as being unpatentable over Lin in view of Cui and Murdock. Claim 27 is patentable over Lin, Cui, and Murdock because it recites “scaling the color components ... with a ratio between the maximum allowed value and the maximum coefficient of said out-of-gamut second colored image data.” This method is described, for example, in paragraph 26 of the Application. While the Office Action alleges that Cui describes the same scaling technique in paragraphs [0029]-[0032], this is not true because Cui’s paragraph [0032] teaches scaling the chroma of an input gamut triangle based on the ratio

of the maximum chroma of the output gamut triangle to the maximum chroma of the input gamut triangle. This is a different ratio than what is recited in Claim 27.

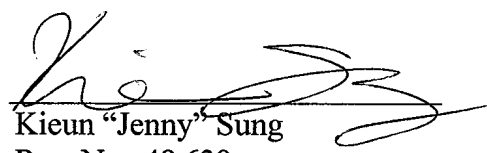
Claim 28 depends from Claim 27, and is thus patentable over Lin, Cui, and Murdock for the same reason as Claim 27.

Conclusion


Based on the foregoing reasons, all pending Claims are now in condition for allowance. The Director is hereby authorized to charge any deficiency in fees, or credit any overpayment, to Deposit Account No. 50-2257. Please telephone the undersigned attorney at (408) 392-9250 if there are any questions.

Respectfully submitted,

Dated: January 16, 2009

By: 
Kieun "Jenny" Sung
Reg. No. 48,639
Attorney for Applicants

MACPHERSON KWOK CHEN & HEID LLP
2033 Gateway Place, Suite 400
San Jose, CA 95110
Telephone: (408) 392-9250
Fax: (408) 392-9262

<p style="text-align: center;">FILED VIA EFS CERTIFICATE OF TRANSMISSION</p> <p>I hereby certify that this correspondence is being transmitted to the United States Patent and Trademark Office (USPTO) via the USPTO's EFS-Web electronic filing system on January 16, 2009.</p> <p>Kieun "Jenny" Sung</p> <p>Signature: </p>
--